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Abstract of the Disclosure

A composite material composed of a matrix phase bonded by a carbon binder phase derived from sintered carbon nanoparticles such as, for example, fullerenes. The present invention further relates to a method of making such composite materials which includes the steps of dispersing a sufficient amount of carbon nanoparticles into a matrix phase, and compressing the carbon nanoparticles-containing matrix phase at a sufficient pressure and temperature over a sufficient time to facilitate the conversion of the carbon nanoparticles into a nanostructured carbon binder phase, thereby yielding the composite material.